LISTING THE CLAIMS

This listing of claims is provided for the convenience of the Examiner. No amendments are made.

1-19 (canceled)

20. (currently amended) An apparatus for locating an insulation fault on a cable including a conductor carrying a current, the cable being in contact with and at least partially submerged in a liquid, the apparatus comprising:

at least one voltage probe adapted to ~~be positioned adjacent~~ at least partially surround the cable with a gap between the at least one probe and the cable, and displaced along the cable whereby the liquid conducts at least a portion of the current across the gap between the probe and an insulation fault on the cable; and

a voltage comparator electrically connected to the at least one voltage probe for detecting an insulation fault when the voltage probe is positioned adjacent the fault.

21. (previously presented) The apparatus of claim 20, further comprising a body holding the at least one voltage probe, the body being adapted to at least partially surround a transverse section of the cable.

22. (previously presented) The apparatus of claim 21, wherein the at least one voltage probe comprises a plurality of voltage probes angularly spaced around the transverse section of the cable.

23. (previously presented) The apparatus of claim 21, wherein the conductor is an optical fiber cable having a cable locating conductor, and the body is adapted to at least partially surround a transverse section of the fiber optic cable.

24. (previously presented) The apparatus of claim 20, wherein the at least one voltage probe presents a conductive surface facing the cable.

25. (previously presented) The apparatus of claim 20, wherein the liquid is groundwater.

26-33 (canceled)

34. (currently amended) A method for locating an insulation fault on a cable in contact with and at least partially submerged in a liquid, the cable carrying a current in a conductor, the method comprising the steps of:

positioning a voltage probe ~~adjacent~~ to at least partially surround the cable with a gap between the probe and the cable, whereby the liquid conducts at least a portion of the current across the gap between the probe and an insulation fault on the cable;

measuring a voltage at the voltage probe; and

based on the voltage, detecting the fault at a position of the voltage probe along the cable.

35. (previously presented) The method of claim 34, wherein the liquid is water.

36. (previously presented) The method of claim 34, wherein the voltage probe comprises a plurality of conductive surfaces facing the cable.

37. (previously presented) The method of claim 34, wherein the step of positioning a voltage probe adjacent the cable includes at least partially surrounding the cable with the voltage probe.

38. (previously presented) The method of claim 34, further comprising the step of applying a voltage between approximately 80 and 100 volts to the conductor of the cable

39. (previously presented) The method of claim 34, further comprising the step of sounding an alarm when the fault is detected.

40. (previously presented) The method of claim 34, wherein the cable is a fiber optic cable and the current is a cable locating current.

41. (previously presented) The method of claim 40, further comprising the step of initially determining an approximate position of the fault by determining a position along the cable where an above-ground detectability of the cable locating current degrades.

42-46 (canceled)